

Recreational Geocaching: The Southeast Queensland Experience



Robert Webb

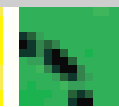
**School of Design and Built Environment
Queensland University of Technology**

Overview

- What is this Recreational Geocaching Sport?
- Some recent history of the sport
- Some basic rules
- QUT leadership in regional sport
- Global, National and Local Map Update
- Degree Confluence Project
- What is remaining in Queensland?
- QUT densification for “novelty” value
- Sporting Conclusions

What is this Recreational Geocaching Sport About?

- A new 21st century recreation and adventure that came about after the deactivation of Selective Availability on GPS
- Allows users of hand-held GPS the ability to find geographic locations with 5-10 metres of repeatability



LET'S GO

GEOCACHING

What is this Recreational Geocaching Sport About?

- This rapidly developing sport uses the **Internet** as medium for distribution of geocache locations
- **Internet** allows communication between geocacher and those searching for the geocache
- Posted on the Internet along with geographic co-ordinates are clues, pictures, and other information about the geocache.

QUT

<http://www.geocaching.com/>

Geocaching - The Official Global GPS Cache Hunt Site - Netscape

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 LET'S GO GEOCACHING



Join Geocaching -

The sport where YOU are the search engine.

A **GPS device** and a hunger for adventure are all you need for high tech treasure hunting. Here you can find the latest caches in your area, how to hide your own cache, and information on how to get started in this fun and exciting sport.

There are now caches hidden in 68 countries!

you are not logged in. [login](#)

To locate the nearest geocaches in your area...

by zip code (US Only):

by state (US Only):
Alabama*

by country:
Australia*

*new caches (last 7 days)



American Red Cross

Support the Red Cross

You can support relief efforts by making a donation to the American Red Cross Disaster Relief Fund. Please click [here](#) on the red cross to the left to donate.

What is this all about?

New to Geocaching? You can [Read our Frequently Asked](#)

<mailto:contact@geocaching.com>

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Some History of the Geocaching Sport

- GEO for geography
- CACHING for the process of hiding a cache or treasure
- On May 3rd 2000 (2 days after SA was removed) a container of goodies was hidden outside Portland, Oregon
- By May 6th the cache was visited twice and log-booked once. **THE BIRTH OF GEOCACHING AS IT IS NOW KNOWN**

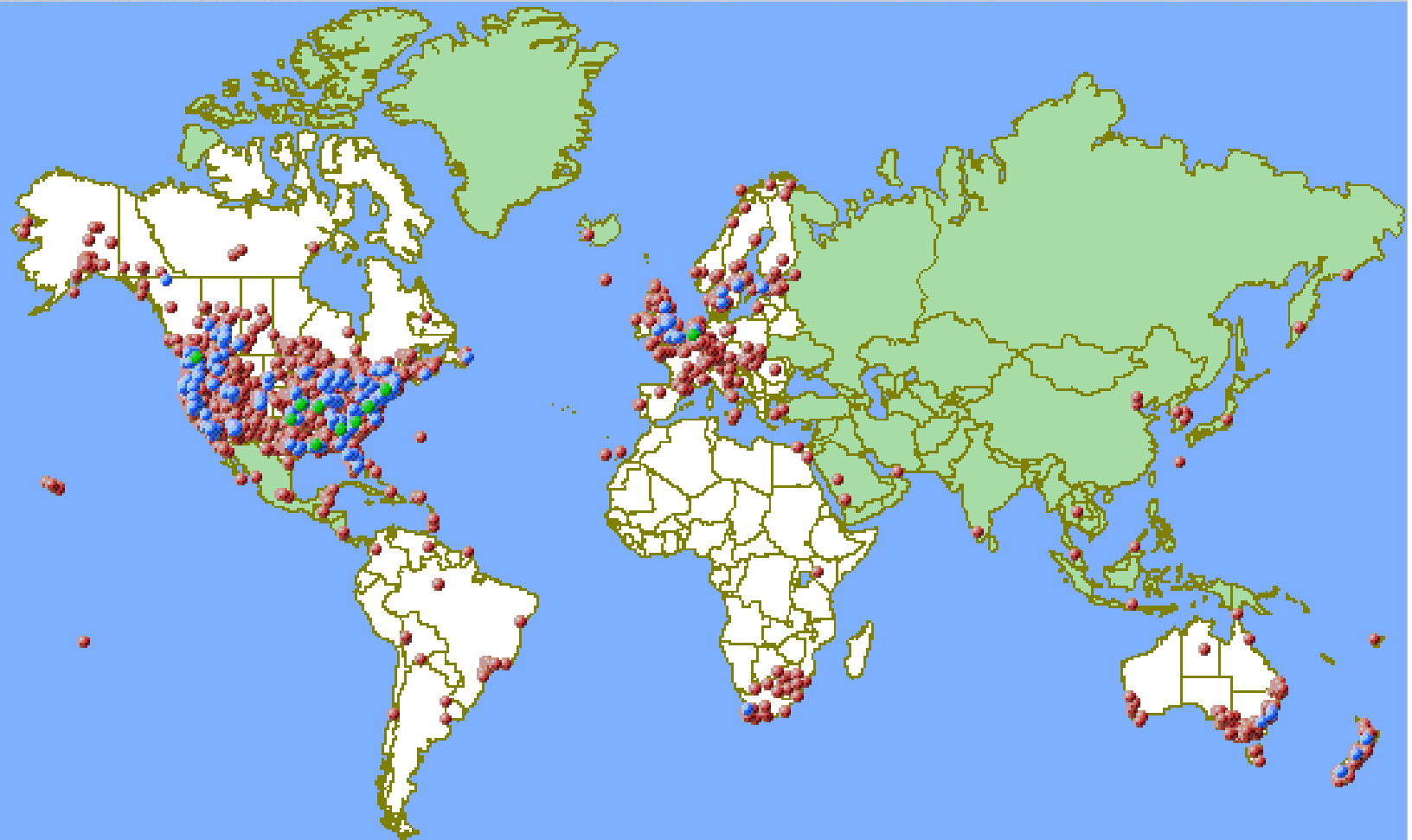
GEOCACHING Notoriety

- Mike TEAGUE was first to find that container, and built the first web-site to document these locations/containers and posted to the [sci.geo.satellite-nav](#) newsgroup
- Paul Edwards “planted” Australia's first geocache May 18, 2000 at Lane Cove near Sydney
- In July 2000, Jeremy Irish (Seattle) got hooked on this sport and took over from Mike Teague using the name GEOCACHING(Sept 2000), developing new web-site adding virtual logs, maps and an approach to maintain caches as the sport grows.

Where has this sport grown to now?

- Since the launch of the web-site
(only 12 months ago)
the Geocaching sport has grown to
6899 active caches in 68
countries. (as at 19 Sept. 2001)

Global Map - Geocaches

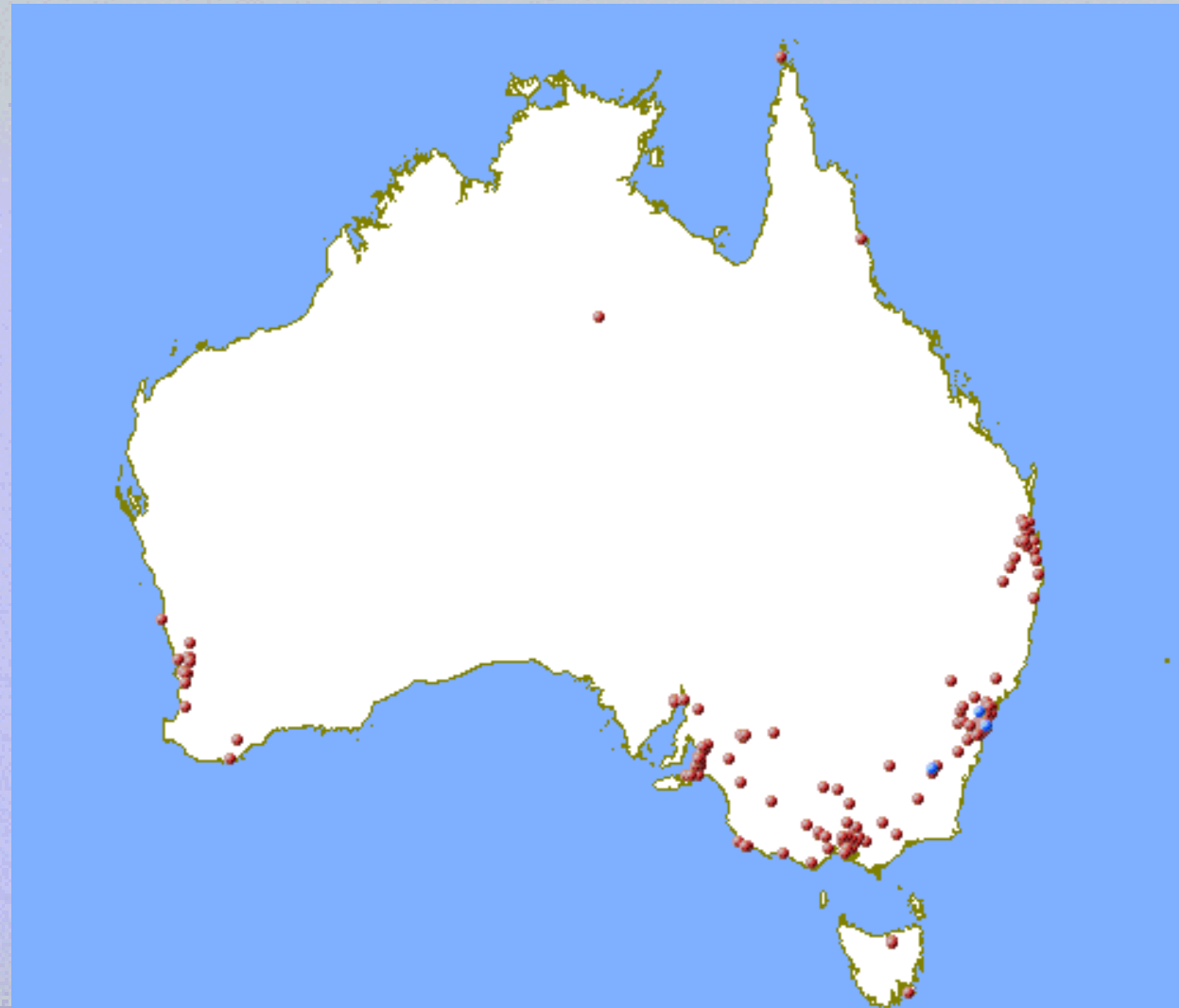


6899 caches as of 19 Sep 2001

<http://www.brillig.com/geocaching/>

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Australian Region - Geocaching



194 caches as of 19 Sep 2001

<http://www.brillig.com/geocaching/>

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Some Basic Rules of the GEOCACHING SPORT

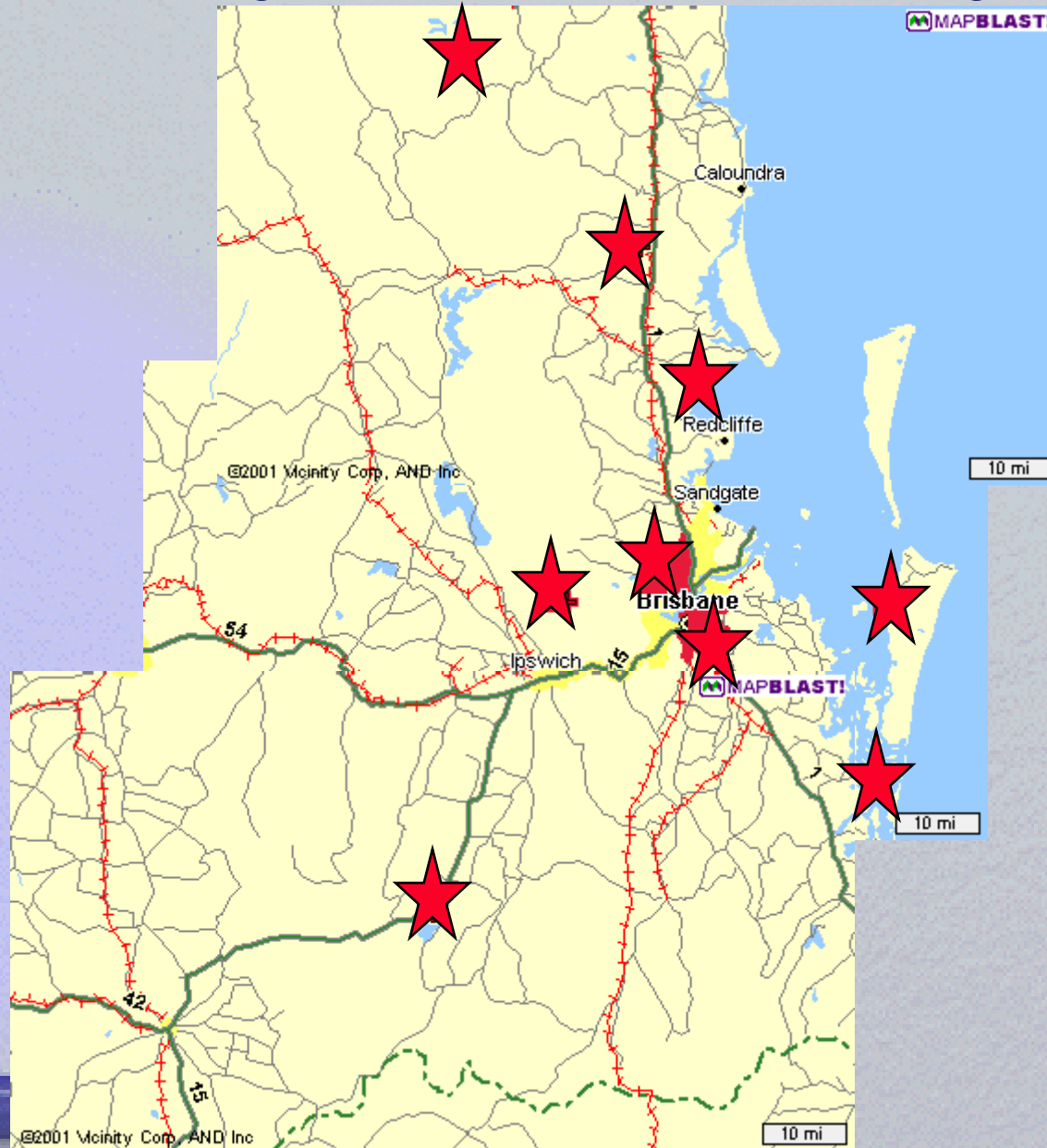
- Enjoy the challenge of finding the cache
- Take something from the cache
- Leave something in the cache
- Write about it in the logbook
- Note your comments on the web-site

Variations on the main theme

- **Offset Caches** - the published co-ordinates are those of existing historical monument, PSM etc and continue using clues to the actual cache
- **Multi-Caches** - the first cache gives coordinates (or partial coordinates) to the next location, or multiple caches have hints to the final cache.
- **Virtual-Caches** - a cache is actually an existing landmark, such as a tombstone or statue. You have to answer a question from the landmark and let the "cache" owner know as proof that you were there.
- **Micro-Caches**

QUT Surveying Involvement

- Innovative Teaching Approach for introduction to GPS and datums using orientation methods and geocache.com
- Nine Caches placed in South-East Queensland as part of the learning adventure
- refer to applied learning approach in paper and table of geocache analysis





Goal is to visit each latitude and longitude integer degree intersections of world*, take pictures and provide a narrative describing the adventures it took to get there.

History of Founder Alex Jarrett

- Project started by Alex Jarrett, (USA) in February 1996 based on the idea of visiting a location represented by a round number such as **27°00'00"S 153°00'00"E** and creating an organised sampling of the world.
- The curiosity questions posed by Jarrett included "*What would be at this location? Would other people have recognised this as a unique spot? I visited several confluences of my own and posted them to my personal web-site. Before long others found the site and visited confluences of their own, and it just snowballed from there.*" (Jarrett 2001b Section 1.2.)

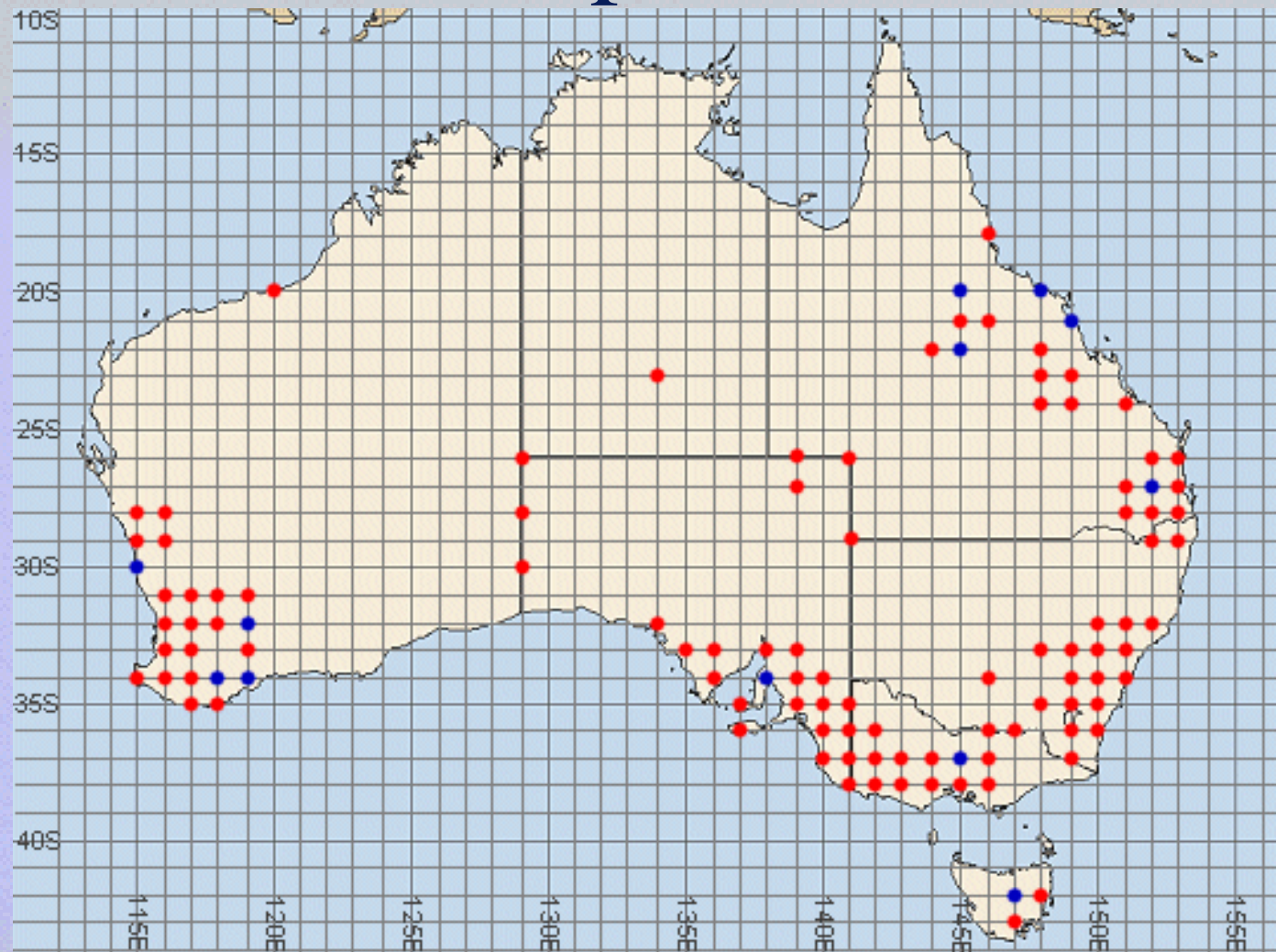
Confluence Poles Problem

- Jarrett further explains that *"It has been calculated that there are 64,442 latitude and longitude degree intersections in the world (counting each pole as one intersection). Of these, 47,650 meet the goals of the project after removing many confluences near the poles. Of this group, about 12,000 are actually on the land and should meet the requirements for primary confluences."*

Confluence Poles Problem *Continued*

- solution to the problem is to skip confluences when the distance between them falls below $\frac{2}{3}$ of the distance at the equator (46.1 miles/74.2 km). This begins at 49 degrees latitude (*which happens to be a large section of United States/Canadian border*).
- At 49 degrees, the distance between longitude lines is 45.4 miles (73.1 km). Every third confluence will be skipped (when the longitude modulo 3 equals 2) until the average distance falls below $\frac{2}{3}$ of the distance at the equator. This happens at 64 degrees, after which every other confluence will be skipped (longitude modulo 2 equals 1), and so on.

Australian Map 110 out of 704



DCP: 28 degrees south, 153 degrees east - Netscape

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28°S 153°E



Australia : Queensland

**Outside Beaudesert,
QLD, Australia**
Approx. altitude: 189 m (620 ft)
(maps: [street](#))

Click on any of the images for the full-sized picture.



(visited by [Ross Finlayson](#), [Daniel Klein](#) and [Lorette Cheswick](#))

This confluence has been visited twice. The second (successful) visit was by Dan Klein and Lorette Cheswick:

06-Jul-2000 -- The day Lorette and I drove to 28S 153E (and also 28S 152E) was in between times that I had to teach a class and deliver a lecture at the SAGE-AU conference at Bond University. Lorette had rented a car, and since her husband Bill and daughter Kestrel were far more interested in attempting to destroy their vestibular-ocular systems on roller coasters, we dropped them at the Dreamworld amusement park and set off for the hills.

Literally. Armed with a large scale map of Queensland and a really bad set of

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DCP: 27 degrees south, 153 degrees east - Netscape

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Bookmarks Location: <http://www.confuence.org/confluence.php?lat=-27&lon=153>

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 [W](#) [E](#) [S](#) [N](#)

[Australia : Queensland](#)

Between Elimbah and Donnybrook, E of Bruce Highway, QLD, Australia


Approx. altitude: 65 m (213 ft) (maps: [street](#))

Click on any of the images for the full-sized picture.



(visited by [Ross Finlayson](#))

24-Mar-2000 -- This is the northernmost of the two confluences in the greater Brisbane area, and is located within a commercial pine forest about 10 km north of Caboolture, and about 1 km east of the Bruce Highway. To reach it, I exited the Bruce Highway at the "Glasshouse Mountains tourist route", but then doubled back over the freeway (following the signs towards "Donnybrook"). This road continues as a rough unpaved road, and winds around behind (to the east of) the confluence. At [-26.99220, 153.01247], I parked at a junction with a forestry service road, and hiked along this to the confluence. This road crosses Elimbah creek (see photo 5), and runs to within a few hundred metres of the confluence. A set of 4wd tracks takes you close to the confluence itself.



Most of this area has been recently forested and clear of trees. However, as of March 2000, the confluence itself lies just within a stand of pine trees that has yet to

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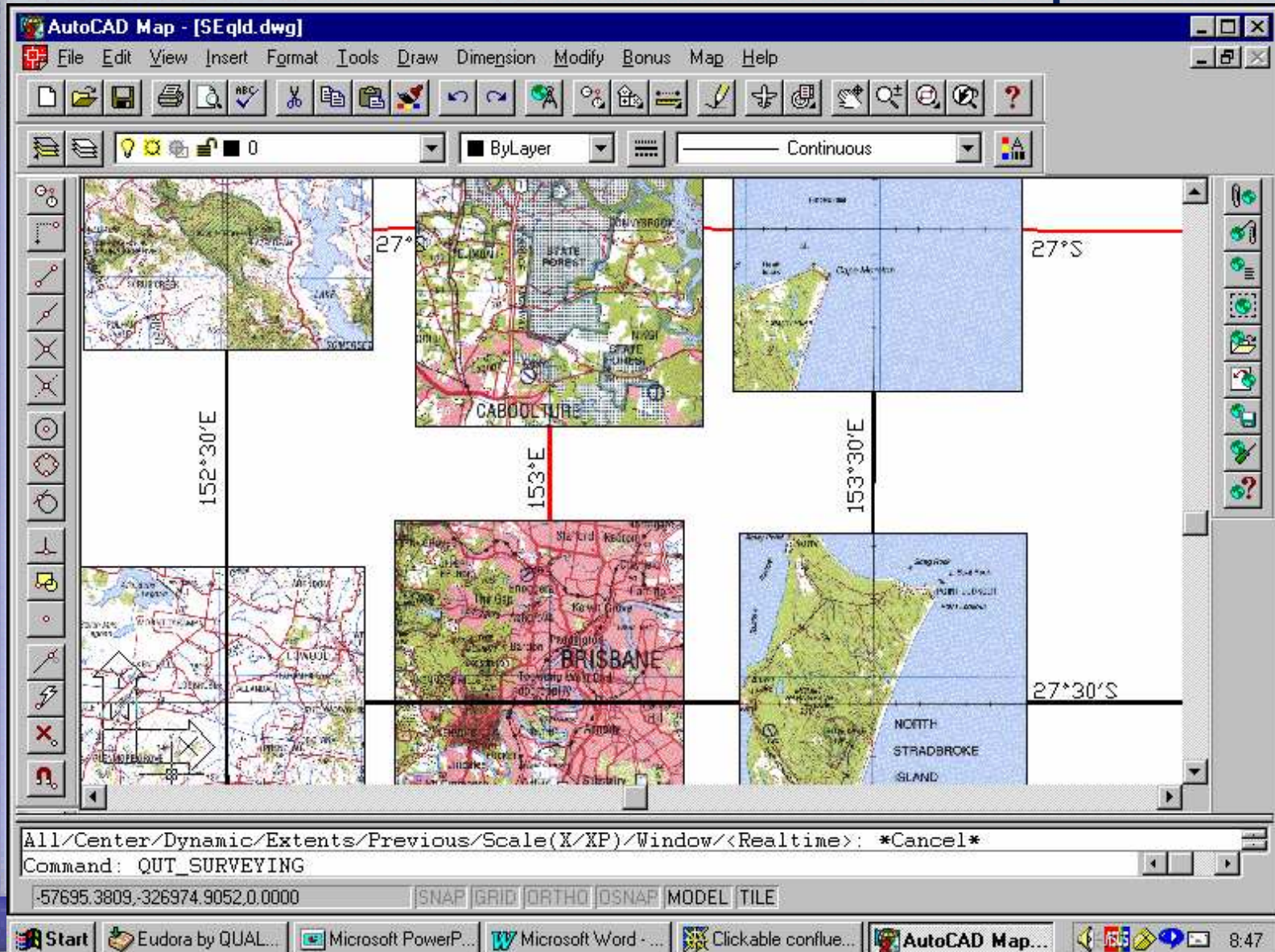
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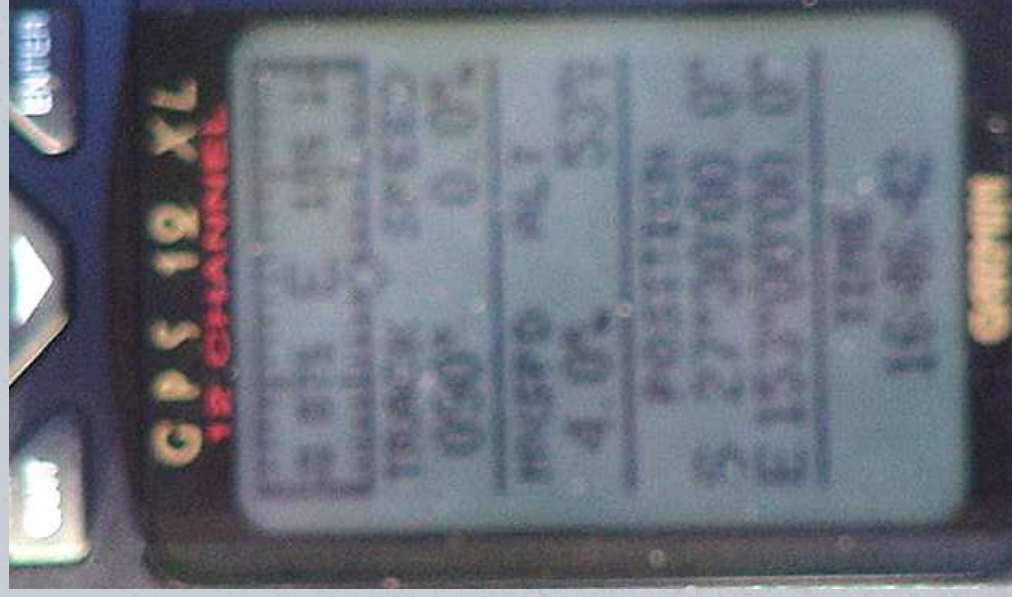
QUT Surveying Adding to Confluences as an Applied Learning Approach

- Confluence density to increase to 30 minutes WGS-84 (regional extents)
- Development of Visualisation Tools
- Learning through exciting project amendments

Visualisation Tools under development



27d30' South
153d East WGS-84





Conclusions

- Exciting spatial odyssey adventures have been opened up using evolving technologies such as GPS and Internet
- The surveying profession is well placed in terms of providing leadership for spatial information gathering and dissemination
- Old real estate saying of location, location, location should now perhaps be replaced by the spatial technologist saying of **POSITION, POSITION POSITION!**
- Robert WEBB School of Design and Built Environment